UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,081	03/13/2001	Fumihiro Arakawa	DAIN:580	9115

7590 02/10/2004

PARKHURST & WENDEL, L.L.P.
Suite 210
1421 Prince Street
Alexandria, VA 22314-2805

EXAMINER	
AMARI, ALESSANDRO V	
ART UNIT	**PAPER NUMBER**
2872	

DATE MAILED: 02/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/804,081	ARAKAWA ET AL.	
	Examiner	Art Unit	
	Alessandro V. Amari	2872	

-- The MAILING DATE of this communicati n appears on the c ver sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-7 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-7 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 5-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oka et al US Patent 6,064,524 in view of Clapham et al US Patent 4,013,465.

In regard to claim 1, Oka et al teaches (see Figure 12A) an antireflection film comprising a transparent layer (12) formed of a cured product of an ionizing radiation-curable resin composition as described in column 3, lines 61-67 and column 4, lines 1-13, the transparent layer having a surface hardness of not less than H in terms of pencil hardness as measured according to JIS K 5400 as described in column 10, lines 3-6, column 18, lines 11-14 and column 24, lines 15-18; and a surface portion provided on one side of the transparent layer as shown in Figure 12A and a layer (13), provided on the surface portion, formed of a resin composition having a lower light refractive index than a refractive index of the transparent layer as described in column 24, lines 13-18.

Regarding claim 2, Oka et al teaches (see Figure 12A) that the transparent layer is backed by a transparent substrate film (11).

Regarding claim 5, Oka et al teaches that the film has antistatic properties as described in column 20, lines 35-38.

Regarding claim 6, Oka et al teaches a polarizing element comprising a polarizing plate; and, stacked on the polarizing plate, the antireflection film as described in column 22, lines 20-67 and column 23, lines 1-46, comprising a transparent layer (12) formed of a cured product of an ionizing radiation-curable resin composition as described in column 3, lines 61-67 and column 4, lines 1-13, the transparent layer having a surface hardness of not less than H in terms of pencil hardness as measured according to JIS K 5400 as described in column 10, lines 3-6, column 18, lines 11-14 and column 24, lines 15-18.

Regarding claim 7, Oka et al teaches a display device comprising: a display section; and, stacked or disposed on the display section in its viewer side, the antireflection film according to claim 1 as described in column 22, lines 20-67 and column 23, lines 1-46.

Regarding claim 12, Oka et al teaches a display device comprising: a display section; and, stacked or disposed on the display section in its viewer side, the polarizing element according to claim 6 as described in column 22, lines 20-67 and column 23, lines 1-46.

However, in regard to claims 1 and 6, Oka et al does not teach a concave-convex portion provided on one side of the transparent layer, the concave-convex portion comprising fine concaves and convexes provided at a pitch of not more than the wavelength of light.

In regard to claims 1 and 6, Clapham et al does teach (see Figure 5) a concave-convex portion provided on one side of the transparent layer, the concave-convex portion comprising fine concaves and convexes provided at a pitch of not more than the wavelength of light as described in the abstract and column 3, lines 8-22.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the concave-convex portions of Clapham et al in the film of Oka et al in order to provide reduced reflectance properties to the surface portion of Oka over a wider range of wavelengths.

Response to Arguments

3. Applicant's arguments filed 18 November 2003 have been fully considered but they are not persuasive.

The Applicant argues that the primary reference Oka et al achieves its antireflection effect by a specific combination of optical interference layers, which is a concept entirely different than that of the claimed invention and that Oka et al does not teach the advantages of the claimed invention namely a good antireflection effect.

In response to this argument, the Applicant is reminded that the claim rejection is based upon the claim recitation. The Applicant's assertion that the instant invention operates on a concept entirely different than Oka et al is moot since the Applicant did recite these features or advantages in the claims.

The Applicant further argues that the secondary reference in the combination, Clapham et al, does not suggest the advantages to be gained by having a specific

combination of a surface hardness of the transparent layer and the specific concave convex surface features. The Applicant further states the Clapham et al shows a surface that is exposed to electromagnetic radiation, the surface being configured to reduce the reflectance of that surface to radiation.

In response to applicant's argument, the Examiner would like to point out that it is the combination of Oka et al (disclosing the surface hardness of transparent layer) in view of Clapham et al (disclosing the concave-convex features) that teaches the claimed invention. The Applicant is reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, the Applicant affirms the motivation for combining the references, namely that incorporating a concave-convex surface as taught by Clapham et al for the film of Oka et al reduces the reflection of the surface to radiation, thus achieving a good antireflection effect.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alessandro V. Amari whose telephone number is (571) 272-2306. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

ava
28 January 2004

MARK A. ROBINSON
PRIMARY EXAMINER